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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
|-----------------|-------------|----------------------|---------------------|
|-----------------|-------------|----------------------|---------------------|

09/212,434 12/16/98 KANEDA

K 862-2569

005514 QM01/1025  
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| EXAMINER |
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| ART UNIT | PAPER NUMBER |
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2623

DATE MAILED:

10/25/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
09/212,434

Applicant(s)  
Kitahiro Kaneda

Examiner  
Mehrdad Dastouri

Group Art Unit  
2623



☐ Responsive to communication(s) filed on \_\_\_\_\_

☐ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire Three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 16-24 and 36-50 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 16-24 and 36-50 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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## DETAILED ACTION

### *Response to Provisional Election*

1. Applicant's provisional election filed on August 11, 2000, has been entered and made of record.
2. Applicant's election with traverse of invention of Group II, Claims 16-24 and 36-50 is acknowledged. The traversal is on the ground that the search and examination of an entire application can be made without serious burden on the Examiner. This is not found persuasive because the bases for restriction requirements is deemed to be proper in lieu of further limitations in other Groups of claims such as Group III (Claims 25-35), which is drawn to communication system for transmitting the result of a manuscript character recognition having provision of an input means which enables a user to interact with the recognition system, and Group IV (Claims 51-65) concerning communication system for transmitting the result of a manuscript character recognition by dividing image into recognition areas having the same attributes. These distinct inventions having separate status in the art as shown by their different classifications (as detailed in Office Action, Paper No. 4) require further search and consideration which results in additional burden on the Examiner.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to

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make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 16-24 and 36-50 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a manuscript ID showing recognition position information of recognition areas in the read manuscript, does not reasonably provide enablement for a manuscript ID showing a kind of manuscript. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. The disclosure does not identify a manuscript ID concerning the kind of manuscript, whether it is associated with a specific language or it is related to a particular type of handwriting. The specification does not enable claim limitation "including a manuscript ID showing a kind of the manuscript" cited in Claims 16, 20, 24, 36, 43 and 50. Claims 17-19, 21-23, 37-42, and 44-49 are dependent on Claims 16, 20, 36 and 43, respectively.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 16-19, 22, 41 and 48 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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In Claim 16, Line 9, "data" is vague and indefinite. It appears that "data" should be corrected to "the image data".

In Line 3 of Claims 18 and 41, "managing said control signal every kind of a manuscript" is vague and indefinite.

In Claim 22, Line 3, "the database" lacks antecedent basis.

In Claim 48, Line 6, "managing said control signal every kind of the manuscript" is vague and indefinite.

Claims 17-19 are dependent on Claim 16.

### ***Claim Objections***

7. Claim 42 objected to because of the following informalities:

Claim 42 indicates dependency on Claim 1. It appears that Claim 42 should depend on Claim 36.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

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9. Claims 16, 18-20, 22-24, 36, 43 and 50 are rejected under 35 U.S.C. 102(e) as being anticipated by Shimada et al (U.S. 5,982,928).

Regarding Claim 16, Shimada et al disclose a communication system that performs communication between a terminal (Figure 1, Terminals 5/6 and 7/8) and a central control unit (Figure 1, Host Terminal 10000), said terminal comprising:

a read means for reading a manuscript, including a manuscript ID showing a kind of the manuscript, as image data (Figure 2, Digitizer 19; Column 2, Lines 60-63);

storage means for storing a recognition dictionary group whose members each correspond to each attribute of data (Figure 2, ROM 17 for storing permanent information which includes basic and personal dictionaries);

character recognition means for performing character recognition from image data, read by said read means, with selecting a recognition dictionary, based on a control signal, from the

recognition dictionary group, stored in said storage means (Figure 1, Recognition Engines/Basic and Personal Dictionaries 6 and 8; Column 5, Lines 30-34; Figure 5A; Column 7, Lines 60-67,

Column 8, Lines 1-3. As depicted in Figure 5A, in Step S15, handwritten recognition is requested to be performed in corresponding terminals 5 or 7. The control signal from host terminal is the recognition request command (stroke information including the writing position/time information as disclosed in Column 8, Lines 39-49) and the pointer of the data to be recognized.);

manuscript ID recognition means for recognizing said manuscript ID from said image data (Figure 1, Personal Dictionary in Recognition Engine 6. Personal dictionaries in different terminals are

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different depending on individuals. The manuscript ID showing individual's handwriting attributes are recognized by utilizing personal dictionaries.); and

first communication means for transmitting a result of character recognition in said character recognition means and a result of manuscript ID recognition in said manuscript ID recognition means to said central control unit or receiving said control signal from the central control unit (Figure 2, Communication Device 23; Figure 5B; Column 8, Lines 5-15);

said central control unit comprising:

second communication means for receiving the result of character recognition in said character recognition means and the result of manuscript ID recognition in said manuscript ID recognition means from said terminal or transmitting said control signal to the terminal (Figures 1 and 4B, Communication Service 2; Column 7, Lines 19-23); and

control means for controlling said control signal on the basis of the result of manuscript ID recognition in said manuscript ID recognition means, which said second communication means receives (Figure 1, Recognition Control Unit 4, Attribute Addition Unit 3; Column 5, Lines 46-57. The control signal is controlled based on the attribute (manuscript ID) of terminal describer).

Regarding Claim 18, as best understood by the Examiner, Shimada et al further disclose the communication system according to Claim 16, wherein said control means comprises a database managing said control signal every kind of a manuscript that is shown by a manuscript ID and obtains from said database a control signal corresponding to a manuscript ID shown by

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the result of manuscript ID recognition in said manuscript ID recognition means (Figure 1, Attribute Addition Unit 103, Personal/Basic Dictionaries 106/108; Column 5, Lines 46-60).

Regarding Claim 19, Shimada et al further disclose the communication system according to Claim 16, wherein said control signal includes positional information, showing each of plural recognition area in said image data, and recognition dictionary information showing a recognition dictionary used for recognition in each recognition area (Column 8, Lines 39-55. The control signal from host terminal (central control unit) to terminals 5 and 7 includes position information (e.g., a rectangular enclosing the data to be recognized) and stroke information which is based on the attribute of the terminal describer identifying the relevant dictionary (template) to be utilized.).

With regards to Claims 20, 24, 36, 43 and 50 arguments analogous to those presented for Claim 16 are applicable to Claims 20, 24, 36, 43 and 50.

With regards to Claim 22 arguments analogous to those presented for Claim 18 are applicable to Claim 22.

With regards to Claim 23 arguments analogous to those presented for Claim 19 are applicable to Claim 23.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are



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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 17, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al (U.S. 5,982,928) further in view of Lyon (U.S. 5,796,863).

Regarding Claim 17, Shimada et al further disclose the communication system according to Claim 16, wherein said character recognition means determines recognition candidate characters corresponding to said image data with using a recognition dictionary based on said control signal and outputs a predetermined number of recognition candidate characters in the order characters (Figure 1, Terminals 5/6 and 7/8; Column 7, Lines 24-27). Shimada et al do not explicitly disclose determining recognition candidate characters according to largeness of similarity of the recognition candidate characters. Lyon disclose an adaptive classifier for handwritten recognition wherein the candidate characters are recognized according to largeness of similarity of the recognition candidate characters (Figure 1; Column 6, Lines 24-30). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Shimada et al invention according to the teaching of Lyon to determine recognition candidate characters using a recognition dictionary based on the control signal and output a predetermined number of recognition candidate characters in the order characters because it will increase accuracy of the recognition system by selecting candidate characters having highest probability of similarity.

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With regards to Claim 21 arguments analogous to those presented for Claim 17 are applicable to Claim 21.

12. Claims 37-42 and 44-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al (U.S. 5,982,928) further in view of Bricklin et al (U.S. 5,848,187).

Regarding Claim 37, Shimada et al disclose the communication system according to Claim 36, wherein said character recognition means comprises judging means that outputs a recognition candidate character corresponding to said image data with using a recognition dictionary (Figure 1, Recognition Engine/Basic and Personal Dictionaries 6). Shimada et al do not disclose the judging means judges on the basis of said control signal whether said recognition candidate character is recognizable. Bricklin et al disclose a handwritten recognition method and apparatus wherein a judging means judges on the basis of a predetermined threshold whether the recognition candidate character is unrecognizable (Column 18, Lines 41-64), and wherein said character recognition means outputs the result of character recognition on the basis of a judgement result of the judging means (Figure 16A; Column 25, Lines 65-67, Column 26, Lines 1-15). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Shimada et al invention according to the teaching of Bricklin et al to judge on the basis of the control signal whether the recognition candidate character is recognizable because it will reduce probability of erroneous character recognition.

Regarding Claim 38, Bricklin et al further disclose the communication system according to Claim 37, wherein said judging means judges whether said recognition candidate character is

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unrecognizable, by comparing said control signal with similarity of said recognition candidate character (Column 18, Lines 54-62).

Regarding Claim 39, Bricklin et al further disclose the communication system according to Claim 37, wherein said judging means judges that said image data is unrecognizable, if a value shown by said control signal is larger than the similarity of said recognition candidate character (Column 18, Lines 54-57. The handwritten character is unrecognizable if the predetermined threshold (the control signal) is larger than the confidence level for the best fit of the candidate character).

Regarding Claim 40, Bricklin et al further disclose the communication system according to Claim 39, wherein said character recognition means outputs a predetermined code showing unrecognizableness as a recognition result of said recognition candidate character if the recognition candidate character is unrecognizable as a result of judgement of said judging means (Figure 16A; Column 25, Lines 59-61).

With regards to Claims 41 and 48 arguments analogous to those presented for Claim 18 are applicable to Claims 41 and 48.

With regards to Claims 42 and 49 arguments analogous to those presented for Claim 19 are applicable to Claims 42 and 49.

With regards to Claim 44 arguments analogous to those presented for Claim 37 are applicable to Claim 44.

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With regards to Claim 45 arguments analogous to those presented for Claim 38 are applicable to Claim 45.

With regards to Claim 46 arguments analogous to those presented for Claim 39 are applicable to Claim 46.

With regards to Claim 47 arguments analogous to those presented for Claim 40 are applicable to Claim 47.

***Other prior art cited***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 5,546,538 to Cobbley et al is cited for a system for processing handwriting written by user of portable computer by server or processing by the computer when the computer no longer communicate with server.

U.S. Patent 6,041,133 to Califano et al is cited for a method and apparatus for fingerprint matching using transformation parameter clustering based on local feature correspondence.

***Contact Information***

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mehrdad Dastouri whose telephone number is (703) 305-2438.

The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 4:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au, can be reached at (703)308-6604.

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**Any response to this action should be mailed to:**

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**or faxed to:**

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**"EXPEDITED PROCEDURE"**)

**or:**

(703) 306-5406 (for *informal* or *draft* communications, please label

**"PROPOSED" or "DRAFT"**)

**Hand delivered responses** should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to  
the Group Receptionist whose telephone number is (703)305-3900.



Mehrdad Dastouri  
Patent Examiner  
Group Art Unit 2723  
October 20, 2000



Amelia Au  
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